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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,667	10/24/2003	Kouichi Takeuchi	12014-0022	6353

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CLARK & BRODY
1090 VERMONT AVENUE, NW
SUITE 250
WASHINGTON, DC 20005

EXAMINER

CARRILLO, BIBI SHARIDAN

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,667

Applicant(s)

TAKEUCHI ET AL.

Examiner

Sharidan Carrillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08022005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,15,17,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,15,17,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. Figures 1, 4-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Refer to JP2000-297390. See MPEP § 608.02(g).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 5-7, 15, 17, 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 5 are indefinite because it is unclear how the distribution ratio is calculated based on the pickling pattern and the traveling speed. Claim 6 is indefinite because of the and/or clause. Additionally, the limitations of "the predetermined acid concentration deviation" lacks positive antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 5-7, 17, and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mabuchi et al. (6096137).

In reference to claim 1, Mabuchi et al. teach a method of controlling

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pickling by monitoring operating conditions such as thickness and width of the steel strip, line speed (Abstract) and calculating the concentration of acid supplied into the pickling tank based on the above parameters.

In reference to the distribution ratio and claim 2, Mabuchi et al. teach calculating and controlling the concentration distribution of aid based on the operating conditions (col. 2, lines 39-65). In reference to claim 6, also refer to col. 3, lines 25-31. In reference to claim 5, refer to col. 7, lines 15-25 which teaches determining preset values for the concentration of the acid. In reference to claims 7 and 17 refer to Fig. 1. In reference to claims 21-22, refer to col. 1, lines 1-15.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. (6096137) in view of Kawasaki et al. (4872245).

Mabuchi et al. teach the invention substantially as claimed with the exception of scale thickness based on the steel type. Page 6 of the instant specification teaches "steel type" based on the steel composition and coiling temperature.

Kawasaki et al. teach a method for continuous pickling of a hot-rolled steel strip (Abstract). In col. 7, lines 35-45, Kawasaki et al. teach that the type or grade and coiling temperature are initially set in the control computer. The properties of quantity of scale is determined based on the input in the control computer.

It would have been obvious and within the level of the skilled artisan to modify the method of Mabuchi et al. to include adjusting the scale thickness based on the operating parameters, as taught by Kawasaki et al, for purposes of removing scaled from the surface of the hot-rolled steel.

Response to Arguments

10. Applicant argues that Mabuchi fails to teach controlling the supply of acid solution to the at least first and second tanks. Applicant's arguments are unpersuasive for the

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following reasons. In col. 2, lines 50-65, Mabuchi teaches monitoring a quantity of state wherein at least one of the quantities of state of operation includes the supply amount of the acid solution which is supplied to the pickling tank. The examiner argues that monitoring the supply of acid in the pickling tank is equivalent to "controlling the supply of acid" as recited in claims 1 and 5. In col. 3, lines 9-50, Mabuchi teaches monitoring the supply of acid and further teaches calculating material balance of the acid at a plurality of positions based on the amount of acid flowing in and flowing out of the tank and the amount of acid consumed at respective optional positions in the pickling tank. This is also a controlling step. Basically, Mabuchi teaches controlling the supply of acid by monitoring the acid concentration at a plurality of locations and looking at the amount of acid flowing in, flowing out, and consumed. In col. 9, lines 12-15, Mabuchi teaches controlling the HCl acid supplied. Additionally, col. 15, lines 45-50 teaches controlling at least one of concentration of a supply acid which is supplied into the pickling tank. Further, it is notoriously well known in the art to control the amount of acid in teach tank as evidenced by Patents 5,800,694, 3,433,670, and 6,396,280.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mancke et al. teach control of pickling baths. Hill teaches pickling bath control apparatus. Starcevic et al. teach pickling of stainless steel. Wasserbauer et al. teach pickling of stainless steel. Aihara teaches controlling liquid quality in the pickling tank.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc



**SHARIDAN CARRILLO
PRIMARY EXAMINER**